Integrating IBM Forms 4.0 or later with IBM Case Manager 5.1

A Step-by-Step Guide

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Abstract: This article is intended for business analysts and case application developers who want to integrate IBM® Forms with their IBM Case Manager system. Following the steps and guidelines in the article will help you to quickly acquire the essential skills required to create IBM Case Manager applications that integrate IBM Forms.

Overview

IBM Case Manager applications provide the ability to incorporate IBM Forms into case workflows as step pages. The form's data entry fields can be mapped to case properties that are part of a solution, which is designed by using Case Manager Builder.

Forms are created using the IBM Forms Designer tool. The form's fields can be mapped to case properties that are defined in Case Manager Builder.

Integration Steps

1. Create an IBM Forms template with IBM Forms Designer and configure it in Workplace XT.
2. Create a copy of the Work Details Form page in Business Space and register it for Case Manager.
3. On the new Work Details Form page, configure the Case Form widget with the IBM Forms template.
4. In the Case Manager Builder solution task, configure the layout with the new Work Details Form page.

Integration Procedures

Installation and Configuration

The IBM Forms server must first be installed on the IBM WebSphere® Application Server that Case Manager has been installed to:

1. Install the Webform Server Translator and Case Manager Integrator components.
    a. Webform Server Translator does not need to be deployed to the WebSphere Case Manager profile.
2. Using the IBM Case Manager Administration Client, open the Deploy Forms Application task to configure the Forms server in the WebSphere Case Manager profile. Make sure the "Restart WebSphere Application Server" option is checked before running this task.
3. After installation and configuration with the administration client is complete, verify the following:
    a. The CaseForms application is present and running in the Case Manager WebSphere profile.
    b. Log in to Case Manager Client and open the Space Configuration page to verify that the Forms_Demo Case Pages and Forms_Demo Step Pages page templates are present.

Solution Creation

Using Case Manager Builder, create the solution that will integrate with your form. Create the Case Properties that will be used in the form's data entry fields. Each property that will be used in the form must be assigned to the Case Type that will contain the form pages in workflow steps.

Using Case Manager Builder:

1. Open the Case Type>select Properties> select Add Property.
2. Choose the **Existing** option for those properties that you created by using the Properties tab from the main solution window or the **New** option to create new properties that will be directly associated with the Case Type.
3. For each property added, click the **OK** button to the right of the **Description** field to complete the addition.
4. Save and deploy the solution.

Form Creation

Using IBM Form Designer, create a form page and add the desired fields. Data types are limited to String, Integer, and Boolean. Make sure that the Form's field name is identical to the case property symbolic name.

To retrieve the symbolic name of each case property to be used in the form's fields, follow these steps:

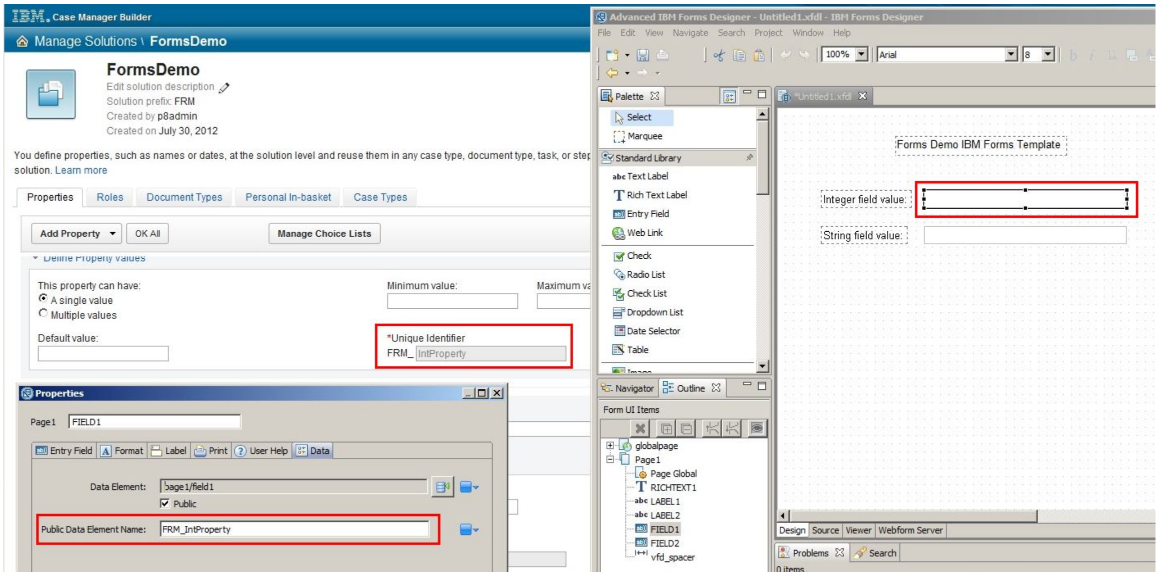
1. Log in to Case Manager Builder
2. Click the solution to enter edit mode
3. Click the Properties tab
4. Click a property name
5. Click Define Property Values. The symbolic name is displayed in the Unique Identifier field
6. If you need to determine the list of properties that have been specifically added to the Case Type that the form is associated with, follow these steps:
    a. Click the Case Types tab
    b. Click the case name
    c. Click Properties in the left column and the properties will be listed

Load the form into Form Designer. For each form field, load the field's property page and enter the case property's Symbolic Name. To accomplish this, follow these steps:

1. Right-click the form field > select Properties
2. Click the Data tab
3. In the Public Data Element Name edit box, enter the case property's symbolic name. Use the exact spelling with no spaces. The name is case sensitive.
4. Save the changes

Figure 1 shows how the Public Data Element Name property of a form field should match the Unique Identifier for the case property in Case Manager Builder.

Figure 1. Form field Public Data Element Name configuration with Symbolic Name



After you add the necessary form fields and configure each field to contain the symbolic name of the case properties, the form must be saved into the case development object store (that is, target object store) by using Workplace XT. Before saving the form, ensure that its file extension is **.xfdd** so that the correct MIME type will be set on the Content Engine document object.

To add the form file:

1. Log in into Workplace XT
2. Expand the target object store that the solution was deployed to and navigate to the object store folder where you want to add the IBM Forms template
3. Click the **Add Document** button on the Workplace XT toolbar
4. In the Add Document dialog, browse to the IBM Forms template document on your drive > click **Next**
5. On the next window, click the **Class** link > click **Form Template -> ITX Form Template** document class or a subclass of it
6. Make sure the **Major version** check box is selected
7. Under Properties, enter a meaningful document title and optionally a description
8. Click **Add** to create the IBM Forms template document in the object store

Configure Forms in Case Manager Client

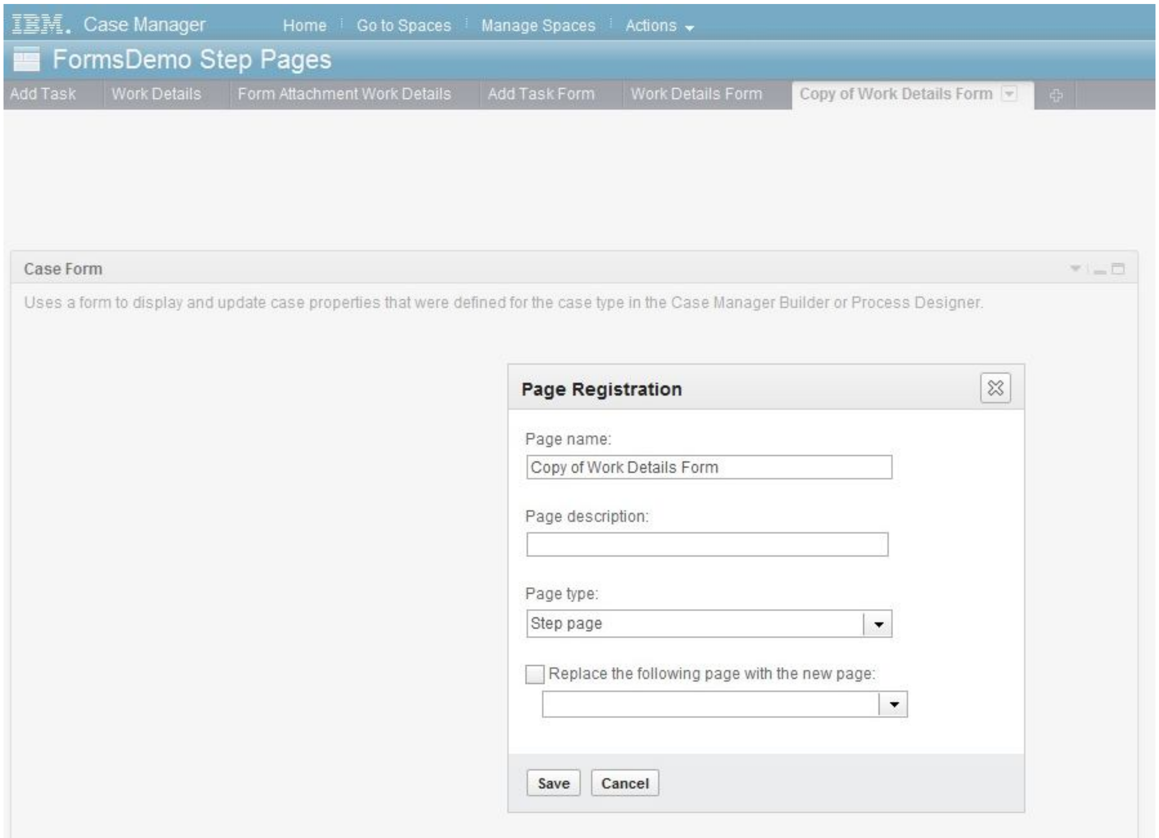
First create a copy of the Work Details Form page in Business Space and register it for Case Manager. This should be done to preserve the original version of the Work Details Form page provided with IBM Case Manager.

Follow these steps:

1. In the IBM Case Manager administration client, click **Manage Spaces** on the IBM Case Manager banner
2. Expand the space called [solution name] Step Pages
3. Find the Work Details Form page. Do not click it. Click the **Actions** button next to it
4. Select the **Duplicate** command from the context menu. A new page called Copy of Work Details Form is created
5. Find the copied page >click **Actions** button next to it
6. Select the **Edit Settings** command from the context menu
7. Specify the name that you want to use for the new page in the **Page name** edit box
8. Click **Save** to save the changes
9. In the Space Manager, click on the name of the new page. This will show the new page in the Case Manager Client.
10. On the IBM Case Manager banner, click **Actions**, and then the Case Manager Space Settings command.
11. You have a chance to assign a name to the new page here as well. Using the Page Type drop-down list, you must specify whether this page is used as a step page or a launch step page in the tasks.
12. Click **Save** to complete the page registration.

Figure 2. shows the Page Registration dialog box.

Figure 2. Page Registration Dialog

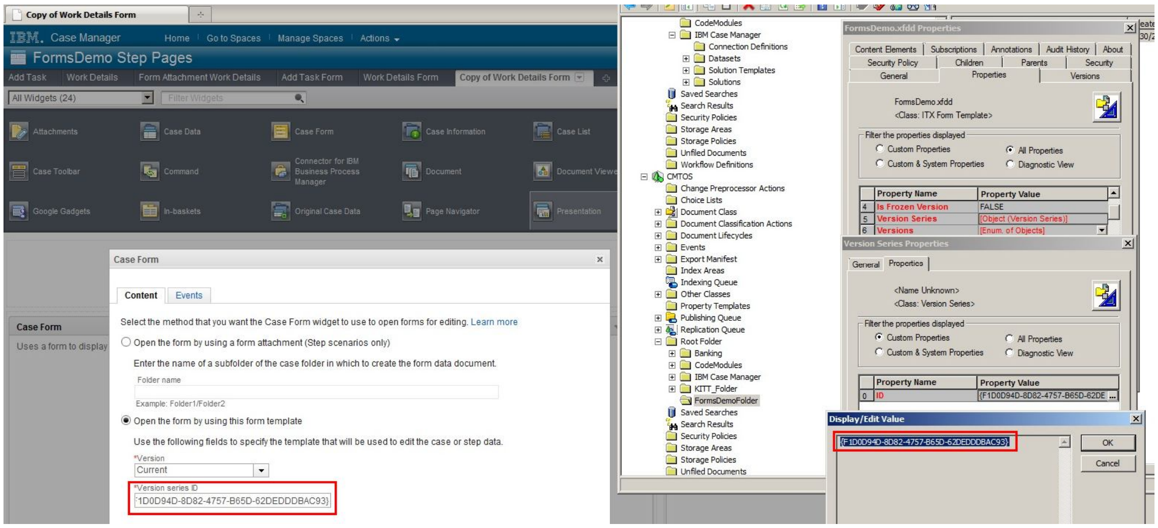


Next, we'll need to configure the Case Form Widgets in Case Manager to associate the forms created by IBM Forms Designer. To do this, we'll need the Version Series ID of the form document that was checked into the target object store from Workplace XT.
To accomplish this, follow these steps:

1. Log in into FileNet Enterprise Manager with administrator credentials that have full control on the target object store (development environment).
2. Expand the target object store
3. Expand the Root Folder and navigate to the folder that contains the form document that was checked in from Workplace XT
4. Right-click the document and select **Properties**
5. On the **General** tab, click the **All Properties** radio button
6. Locate the Version Series property and click in the value cell. The Version Series Properties dialog box opens
7. Click the **Properties** tab
8. Click the small push button to the right of the ID property's value cell
9. Right-click the highlighted ID value and select **Copy**
10. To preserve this value for the subsequent process of integrating the form into the case widget, paste this ID value into Notepad or other text editor

Figure 3. shows how the Case Form widget version series ID field should match the form document Version Series ID property in the object store when configuring the Case Form widget for the template method. (See the text below about the template method.)

Figure 3. Case Form Widget Configuration with Form Document Version Series ID



The Case Form widgets in Case Manager must be configured to associate the forms created by IBM Forms Designer. You can configure each Case Form widget by using one of the following methods.

- Configuring the Case Form widget to use a form template: http://publib.boulder.ibm.com/infocenter/casemgmt/v5r1m0/topic/com.ibm.casemgmt.help.doc/acmwrh187.htm

- Configuring the Case Form widget to use an attachment http://publib.boulder.ibm.com/infocenter/casemgmt/v5r1m0/topic/com.ibm.casemgmt.help.doc/acmwrh185.htm

Solution Task Creation

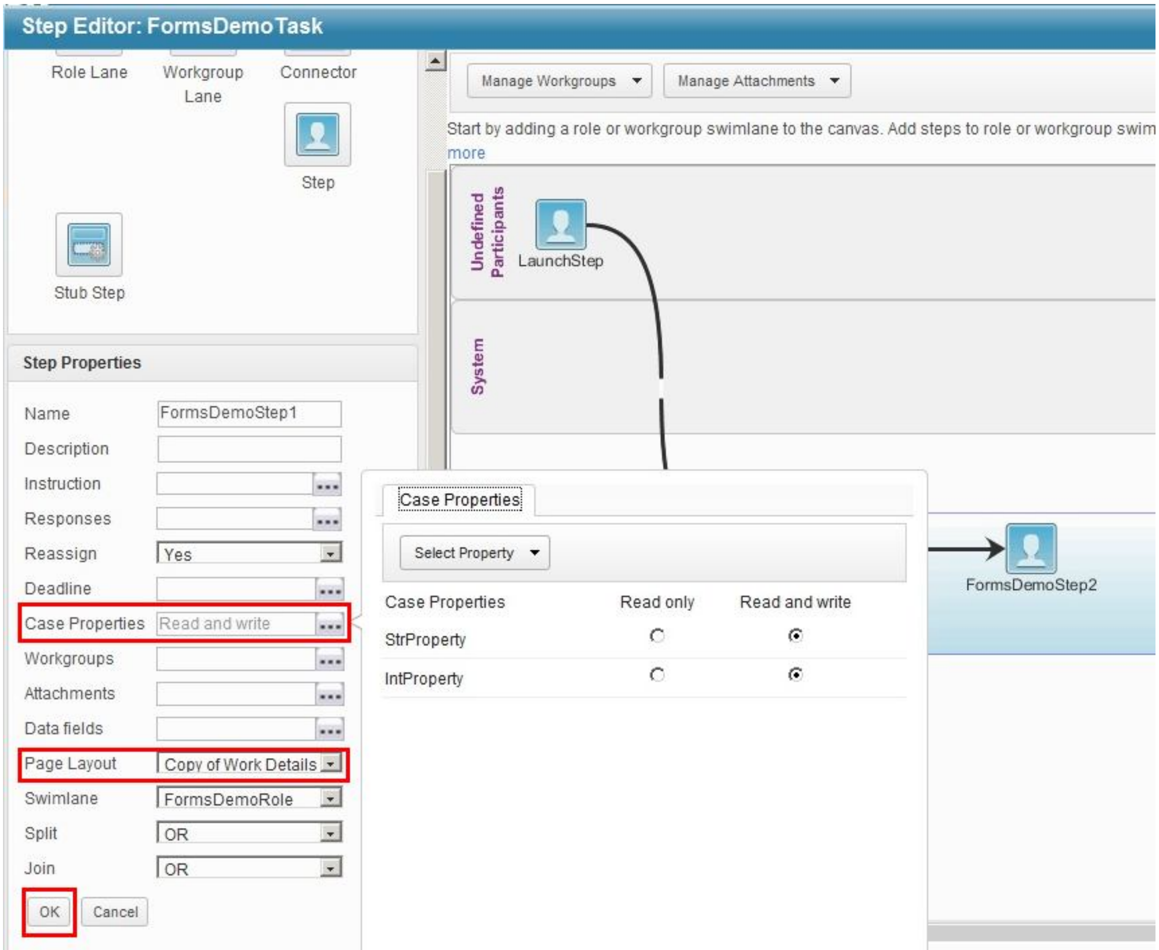
In Case Manager Builder, open the Case Type> select **Properties** > select **Tasks**. For each Task in the Case that will contain steps associated with a form, select **Edit steps** to the right of the task's icon. Drag and drop the Step into a new or existing Lane> highlight the new step. You will need to associate the case properties that will be in the Form and select the Page in Case Manager Client that the Form will be associated with.

Follow these steps:

1. Click the **Case Properties** button. Then, click the **Select Property** button.
2. Select the desired property. Multi-select by first holding down the Ctrl key and then clicking on all desired properties.
3. Click **OK**.
4. Click the down arrow next to Page Layout.
5. Select the page containing the Form. If the page is not in the list, then it was not properly saved and registered in Case Manager Client. If you return to Case Manager Client and perform the page save and register process, you must first commit all changes to the solution and close it, then re-open it after you have saved and registered the page.
6. After you add the case properties, select the Page, and make any other step property changes, click **OK**.
7. Click **Save** at the top right of Step Editor.
8. Click **Validate**. Correct any remaining issues if errors occur.
9. Click **Close** if you are ready to leave Step Editor.
10. Click **Save and Close** when you are ready to exit the solution editor.

Figure 4. shows the three critical steps in configuring a task step for the Work Details form page: Case Properties property, Page Layout property, and the **OK** button.

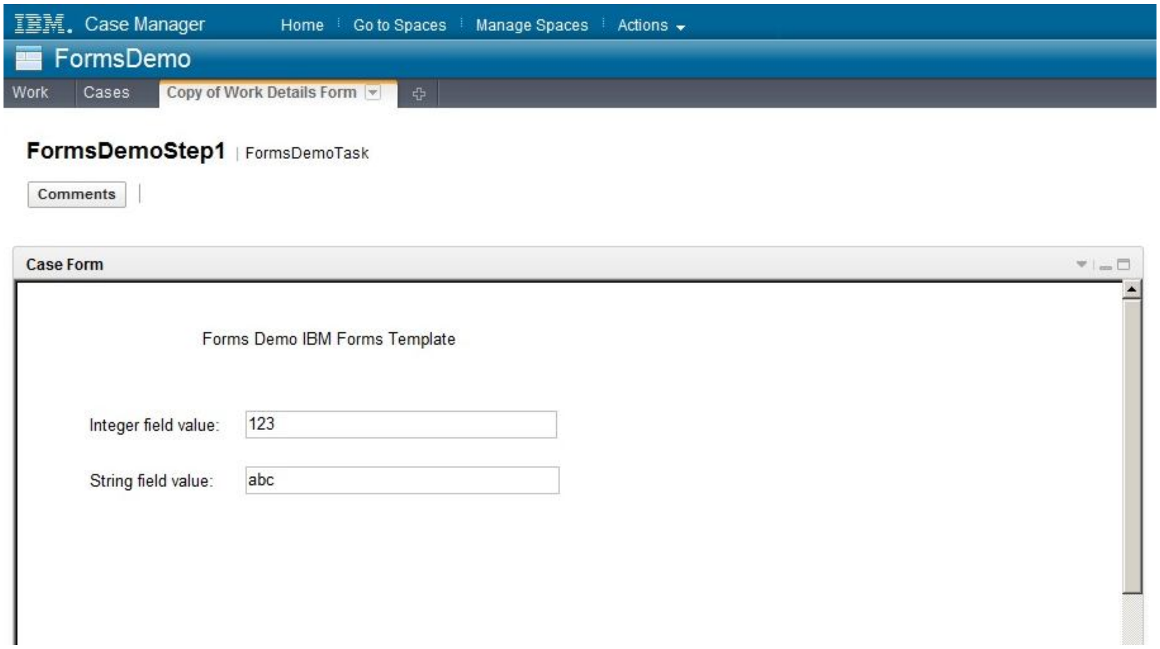
Figure 4. Task Step Configuration for the Work Details Form Page



At this point, you can deploy the solution to test the new step pages in Case Manager Client. After the deployment process completes, click the **Test** option under the solution's title to load Case Manager Client and test the step pages.

Figure 5. Shows how a demo form is displayed by the Case Form widget in Case Manager Client.

Figure 5. Demo Form Displayed by the Case Form Widget in the IBM Case Manager Client



Information Center documentation links for forms integration

http://publib.boulder.ibm.com/infocenter/casemgmt/v5r1m0/topic/com.ibm.casemgmt.installing.doc/acmcp101.htm

http://publib.boulder.ibm.com/infocenter/casemgmt/v5r1m0/topic/com.ibm.casemgmt.help.doc/acmwrh187.htm

http://publib.boulder.ibm.com/infocenter/casemgmt/v5r1m0/topic/com.ibm.casemgmt.installing.doc/acmcp002.htm

General Guidelines for Designing a Form to Use in the Case Form Widget

- Ensure that the form field name and type match the corresponding work item data field name and type
- The widget maps the symbolic name property of the workflow data field to the public data name that is specified in the form
- The symbolic name is set in the Properties window when the form field is made public in Forms Designer

Unsupported IBM Forms features in Case Manager

http://publib.boulder.ibm.com/infocenter/casemgmt/v5r1m0/topic/com.ibm.casemgmt.installing.doc/acmcp003.htm

Troubleshooting

In this section, we discuss some of the most common problems when working with IBM Forms integration in Case Manager.

Field values are not mapped to case property values or vice versa.

Check the following:

1. Make sure that the Public Data Element Name value of the form field is exactly the same as the symbolic name of the case property. This is a case sensitive match and spaces are not allowed. The data type of the form field must correspond to the data type of the case property.
2. In Case Manager Builder Step Editor, be sure that the case property is added to the Case Properties step property of the task step where the page layout containing the Case Form widget is used.

You are unable to add Case properties to the Case Properties step property at the launch step of a task

Case property mapping to form fields can be configured only for tasks that are manually launched by users. This behavior is by design. To allow for mapping properties at the launch step, follow these steps:

1. In Case Manager Builder, click **Tasks** and then click **Edit Task** for the task.
2. Make sure the **If user creates task** radio button is selected if you want to map case properties to form fields at the launch step.

Case Form widget will not work on certain pages in the solution

You see the following error: The form was not opened because a form template was not configured. (CDEWG5411E)

The Case Form widget can be configured only on certain Case Manager Client page types only. The possible choices of page type depend on the configuration of the Case Form widget: whether it is configured to use a form template or a form attachment.

If the Case Form widget is configured to use a form template, then it can be used on one of the following pages or their copies:

- Add Case Form page
- Case Details Form page
- Add Task Form page
- Work Details Form page

If the Case Form widget is configured to use a form attachment, then it can be used on one of the following page or its copies:

- Form Attachment Work Details page